Important Advances in Clinical Medicine

Epitomes of Progress—Urology

The Scientific Board of the California Medical Association presents the following inventory of items of progress in urology. Each item, in the judgment of a panel of knowledgeable physicians, has recently become reasonably firmly established, both as to scientific fact and important clinical significance. The items are presented in simple epitome and an authoritative reference, both to the item itself and to the subject as a whole, is generally given for those who may be unfamiliar with a particular item. The purpose is to assist the busy practitioner, student, research worker or scholar to stay abreast of these items of progress in urology which have recently achieved a substantial degree of authoritative acceptance, whether in his own field of special interest or another.

The items of progress listed below were selected by the Advisory Panel to the Section on Urology of the California Medical Association and the summaries were prepared under its direction.

Reprint requests to: Division of Scientific and Educational Activities, California Medical Association, 731 Market St., San Francisco, CA 94103

Extracorporeal Corporo-Venous Shunting for Priapism

Priapism is a persistent, painful penile erection unaccompanied by sexual desire. In the past two decades, several methods of treatment have been developed, most of which result in detumescence sooner than if the disease were to run its natural course. Inherent in all shunt procedures is the concept that they are temporary. In view of this and the fact that the potency rate even in treated cases still remains at about 50 percent, a new protocol for the management of idiopathic priapism has been derived at the University of Utah Medical Center.

An initial thorough search for the cause is undertaken, and the primary disease in appropriate cases is treated. If conservative measures fail to produce detumescence, aspiration and irrigation of the corpora with pneumatic cuff compression is initiated. If the priapism persists, a shunt procedure such as extracorporeal corporo-venous shunting is carried out.

The advantages of extracorporeal circulatory management include the relative simplicity, requiring only frequent monitoring to assure that flow is adequate, and the procedure can be repeated in cases of recurrent priapism.

CHARLES L. GATES, MD
RICHARD G. MIDDLETON, MD

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Quackels R: Cure d'un cas de priapisme par anastomose caver-nospongieuse. Acta Urol Belg 32:5-13, Jan 1964 (Fr)

Moloney PJ, Elliott GB, Johnson HW: Experiences with priapism. J Urol 114:72-76, Jul 1975

Recent Experience in the Management of Fournier Gangrene

IN REVIEWING our recent experience in managing five cases of necrotizing fasciitis or synergistic gangrene of the scrotal-perineal region, otherwise known as Fournier gangrene, we found ourselves in agreement with current literature as to pathogenesis and bacteriology but in disagreement as to the wide radical debridement advocated.

As the name implies, necrotizing fasciitis spreads rapidly along the fascial planes of the lower abdomen, perineum and perianal region. Obvious progression of erythema, scrotal enlargement and induration extending into the perineum and buttocks occurs in a matter of only several hours. All

of our patients were noted to have crepitus most often of the edematous scrotum which was confirmed by interstitial gas on x-ray studies of the kidney, ureter and bladder.

Systemic diseases such as diabetes mellitus severe atherosclerotic disease often with neurologic deficits may be predisposing factors. Urinary extravasation and periurethral phlegmon may lead to the infection as well. In one of our cases there was a colorectal primary source of infection, with evidence in the literature suggesting an increase in morbidity due to the occult nature of the infection.

Both aerobic and anaerobic cultures were obtained yielding a microaerophilic Streptococcus associated with an aerobic Escherichia coli. These organisms were synergistic with mixed aerobic choliforms such as Bacteroides species, Fusobacterium and Peptostreptococcus. Chloramphenicol and high dose aqueous penicillin G is the preferred treatment.

With experience our surgical approach became more conservative for questionable areas of viability. Rather than the wide radical debridement advocated by Persky, efforts were directed in excising only obvious necrotic tissue and leaving edematous tissue that bled poorly for later demarcation. We found that adequate aeration and drainage would salvage needed tissue for later closure that provided a quite satisfactory cosmetic result.

GEORGE GETTY, MD

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Tobin CE, Benjamin JA: Anatomical study and clinical consideration of the fascial limiting urinary extravasation from the penile urethra. Surg Gynecol Obstet 79:195, 1944

Surgical Treat for the Undescended Testis

TESTICULAR BIOPSY STUDIES of several hundred boys with unilateral undescended testis have shown that the scrotal testis begins a process of maturation after 1 or 2 years of age. The undescended testis lags behind its scrotal mate in this maturation process. These anatomic findings have led to the recommendation for orchiopexy at an early age. Many surgeons would now recommend that surgical therapy be done by the age of 2 years.

In addition to placing the testis in its optimum anatomic location for maturation, there may be some benefit in terms of subsequent malignant tumor formation. Among some 220 case reports of testicular tumors developing after orchiopexy, only six cases occurred in children treated by orchiopexy under the age of 10 years. This is suggestive but not proof that early orchiopexy may protect against some subsequent malignant degeneration.

DONALD C. MARTIN, MD

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Martin DC, Menck HR: The undescended testes: Management after puberty. Urol 114:77-79, Jul 1975

Pelvic Radiation Therapy for Localized Carcinoma of the Prostate

SINCE 1965 a total of 432 patients with localized prostate cancer have received intensive local radiation therapy at The Virginia Mason Medical Center, Seattle. A study group of 277 patients, treated from 1965 through 1975, included 221 with stage C cancer, 36 with stage B cancer and 10 with diffuse stage A disease.

Following careful pretreatment evaluation and treatment planning procedures, the patients received external beam radiation therapy to a level of 6,500 to 7,000 rad. Though initially using cobalt 60, current treatment techniques employ a 10 mv linear accelerator photon beam with an arrangement of opposing anterior and posterior and bilateral pelvic fields, supplemented with more localized bilateral arc rotation boost therapy. Particular attention is directed to gastrointestinal tract shielding.

The five-year survival of the stage C group was 57.7 percent, with no apparent survival influence related to use of estrogen therapy. The 25 patients with postprostatectomy residual or recurrent cancer were treated more cautiously, but tolerated the treatment well with eight of 12 eligible patients surviving five years.

Increasing acceptance of local intensive radiation therapy in the management of prostate cancer is supported by increasing the referral of patients with stage BII and C cancer. Our series of patients has tolerated treatment with acceptable morbidity and with greater maintenance of sexual potency.

Multiple reports attest to the apparent value of external radiation therapy in local management of prostate cancer. Therefore, until more effective methods of treatment are conclusively shown, there is justification to continue its use in: the management of locally advanced nonresectable